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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,533	02/12/2004	Young Sik Kim	0630-1967P	4150
2292 7590 06/07/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER PSITOS, ARISTOTELIS M	
			ART UNIT 2627	PAPER NUMBER
			NOTIFICATION DATE 06/07/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/776,533	<b>Applicant(s)</b> KIM, YOUNG SIK	
	<b>Examiner</b> Aristotelis M. Psitos	<b>Art Unit</b> 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12 and 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 8, 10, 12 and 16 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 6, 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

Applicant's response of 4/11/07 has been considered with the following results.

#### ***Specification***

The amendment to the title of the invention is greatly appreciated, and has been entered.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
1. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hatanaka et al.
- Hatanaka et al discloses a multi-probe array(s) arrangement for accessing a memory device. This array device has both x and y directional scanning ability.

Furthermore as noted in col. 3 lines 15+ redundant array arrangement can indeed be provided for the ability of compensating defective array elements.

In addition, the appropriate control device is present in order to select the appropriate probe. Hence the ability to configure such as required by the claim is considered an obvious capability to those of ordinary skill in the art.

#### ***Response to Arguments***

Applicant's arguments filed 4/11/07 have been fully considered but they are not persuasive. Applicant focuses on the noted passage in the reference as teaching away from the invention. The

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examiner disagrees. The document indicates that it would be complicated when 2500 heads are used. This implies to the examiner (and to those of ordinary skill in the art) that the complexity would diminish as the number of heads is reduced. Since the claimed invention has no specific number of heads, the examiner concludes that the reference does teach/disclose to one of ordinary skill in the art the ability of having redundant heads/probes/arrays as required by the claim.

2. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 as stated in paragraph 2 above, and further in view of Lee et al.

The ability of having redundancy decoder circuit is further taught by Lee et al.

It would have been obvious to modify the base system of Hatanaka et al with the above teaching from Lee et al, motivation is as discussed by Lee et al so as to access the appropriate addressed element.

#### ***Response to Arguments***

Applicant's arguments filed 4/11/07 have been fully considered but they are not persuasive. The concept of having a redundancy decoder, i.e., in order to select the "redundant" element is considered to be taught. The appropriate use of decoders for redundant addresses is taught, whether such address is required due to a defective electrical circuit, or a defective memory location is not of moment.

3. Claims 7,8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 2 above, and further in view of Fukuda et al.

With respect to claim 7, y redundancy capability including appropriate switching elements for selecting/switching of the "y" (either row or column) is considered present in the above combined references, i.e., in order to select/enable the appropriate redundant array, both "x" and "y" selecting capabilities is required.

With respect to claim 8, such is considered to occur when the appropriate condition is detected.

With respect to claim 10, the nxm array is considered present in the above combined teachings.

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It would have been obvious to modify the base system as relied upon above with respect to claims 2 and 3 with the additional fuse elements teaching from Fukuda et al, i.e., use of existing redundancy circuit array arrangements in order to achieve the desired selection.

### ***Response to Arguments***

Applicant's arguments filed 4/11/07 have been fully considered but they are not persuasive. The overall teaching of switching upon appropriate condition is considered to be present in the above reference and the examiner maintains the rejection.

4. Claims 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 11 & 15 as stated in paragraph 4 above, and further in view of Official notice.

The use of nand logic circuitry for their inherently logical functionality in order to permit a selection of appropriate addressing lines is considered well known in the electronic arts and Official notice is taken thereof.

It would have been obvious to modify the base system as relied upon above as stated in paragraph 4 with such additional well known logic circuitry, motivation is to use appropriate logic gates in order to perform the desired selection.

### ***Conclusion***

### ***Allowable Subject Matter***

Claims 4,5,6 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

a. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH

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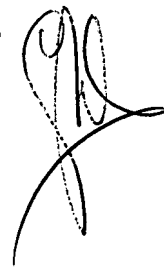
shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-F: 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aristotelis M Psitos  
Primary Examiner  
Art Unit 2627

A handwritten signature in black ink, appearing to be 'AMP', written over a set of horizontal lines.

AMP